Vehicle ID Transmitter and Receiver

**TRACK 100**

Track 100 is a compact vehicle identification system designed for the control of moving vehicles.

The transmitter is a vehicle battery powered device that is fitted to the undercarriage of the vehicle. The receiver is connected to a conventional inductive loop buried below the roadway surface.

Energy transfer from the transmitter is by inductive (transformer) action. The transmitter emits a low power signal that is received and verified by the receiver, which responds with a control output.

The system allows for the positive identification of vehicles fitted with the identification device and the receiver ignores unequipped vehicles.

The output of the receiver is used to automatically open a control barrier, or gate or to implement priority traffic control.

**PART NUMBERS**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Voltage</th>
</tr>
</thead>
<tbody>
<tr>
<td>436FT0100</td>
<td>T100 Transmitter</td>
<td>11-40V DC</td>
</tr>
<tr>
<td>436FT0102</td>
<td>Track 100 Receiver</td>
<td>240V AC</td>
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</tbody>
</table>

**APPLICATIONS**

- Road Traffic Priority applications
  - Emergency vehicle priority at traffic intersections, tolls, and similar.
- Selective Access control applications
  - VIP Car park access, rising bollards or other selectively restricted areas
- Industrial Automation applications
  - Fleet tracking
  - Automation of loading processes

**Features**

**Reliability:**

Track 100 has been tested to speeds up to 140km/h, proving reliable operation at high and low speeds.

**All vehicles:**

Track 100 is suitable for all sizes of vehicles from fork-lifts to heavy articulated vehicles. The receiver operates to a distance of 1.2 metres above the roadway.

**Rugged:**

The Track transmitter is totally sealed and suitable for the harshest environments.

**Detector loop compatible:**

The Track 100 Receiver uses a standard detection loop as an antenna and will function with most loops installed for loop detectors.

**Secure code** - The Track 100 Receiver responds to a unique modulated signal with no chance of false triggering by noise or other radio sources.
 TRACK 100

**Transmitter**

- **Transmitter**: 
  - **Frequency**: 133 kHz (carrier)
  - **Modulation method**: FM
  - **Deviation**: ± 600 Hz
  - **Coupling to Rx antenna**: Inductive
  - **Reading height**: 0.1 → 1.2 metres within 30° of horizontal
  - **Harmonic Content**:
    - $2^{nd}$ = -60dBc
    - $3^{rd}$ = -48dBc
    - $4^{th}$ = -86dBc
    - $5^{th}$ = -57dBc
    - >6$^{th}$ = <60dBc
  - **No. of Codes**: 1 (one)
    - Code 1 = 1847Hz
  - **Power**: 11 to 40V DC @ 10ma max.
  - **Mechanical Data**: Transmitter is cone shaped
    - **Base diameter**: 85 mm
    - **Height of cone**: 87 mm
  - **Mounting**: Single bolt mounting 20mm
  - **Material**: Polypropylene - injection moulded
  - **Cable**: 2 core - 1.5 metres length
  - **Operating temperature**: -10°C to +70°C

**Receiver**

- **Front Panel indications**:
  - Green LED : Power on
  - Red LED : "Detect" - transmitter detected
  - Red LEDs : "Code" - Valid code detected
  - **Sensitivity selector controls**: MIN - MED - MAX
  - **Demodulation method**: Phase locked loop demodulator
    - **Antenna**: Standard Induction detector loop
      - 10 µH to 1000µH
      - *(Does not "share" loop with a Vehicle detector)*
  - **Loop Feeder**: Maximum 300 metres
    - Twisted pair cable, 0.5mm square cross section, copper, multi strand
  - **Output**: N/O Relay Contact pair
  - **Relay**: 6 A Rated at 230V AC
  - **Output duration**: Presence - output is maintained as long as transmitter is present.
    - 1 second turn-off delay to prevent spurious signals as transmitter traverses nulls
  - **Power**: 230 / 240 V AC Mains input
    - 2.5 VA max
  - **Size of Housing**: 113 mm (H) X 56mm (W) X 132mm (L) - excluding mating connectors
  - **Mounting**: Free standing shelf mount
  - **Connector**: 11 Pin loop detector format connector
    - Mains - 3 Pin VDE plug
  - **Operating temperature**: -10°C to +70°C

**ADDITIONAL ITEMS**

<table>
<thead>
<tr>
<th>Item</th>
<th>Supplied</th>
</tr>
</thead>
<tbody>
<tr>
<td>VDE Mains lead</td>
<td>supplied</td>
</tr>
<tr>
<td>11 Pin wiring harness (1.5 metres)</td>
<td>supplied</td>
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</tbody>
</table>